Internal Only

01583570 POND BRANCH AT OREGON RIDGE, MD

Responsible Office
U.S. Geological Survey
BALTIMORE
8987 Yellow Brick Road
Baltimore, MD 21237
410-238-4200

Station Description

Most recent revision: 6/21/2007
Revised by: jpsulliv

LOCATION.--Lat 39°28'49.1", long 76°41'15.0" referenced to North American Datum of 1983, Baltimore County, MD, Hydrologic Unit 02060003, on left bank 500 ft upstream from pond, 600 ft above mouth, 1.0 mi southwest of Beaver Dam Road and Ivy Hill Road interchange, and 2.3 mi west of Cockeysville.

ROAD LOG.--Gaging station may be reached from intersection of I-83 and Shawan Road at Hunt Valley as follows:

Proceed westbound on Shawan Road 1.0 mile to the intersection of Beaver Dam road.

Turn left on Beaverdam Road and proceed 1.05 miles to the intersection of Ivy Hill Road.

Turn right on Ivy Hill Road and proceed 1.0 mile to parking area on right.

Park vehicle and walk, following the gravel access road, down hill about 1/4 mile (Road has cable and lock blocking vehicular traffic) to Pond Branch; proceed uphill at this point around the perimeter of the small pond about 550 ft. to weir-plate and gage.

See map for route to gage.

DRAINAGE AREA.--0.12 mi^2.

ESTABLISHMENT AND HISTORY.--January 6, 1983 by Mid-Atlantic District. Discontinued October 1986. Re-established April 1998. No continuous recording gage operated by USGS on this stream prior to 1983.

GAGE.--Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Sutron 8400 electronic stage recorder (15 min. scan interval) installed in a steel shelter mounted on a

3" x 3 ft galvanized pipe mounted on a 6" x 6" x 30" pressure treated timber attached to the left upstream facing of the aluminum weir plate. Intake is perforations drilled in pipe 0.2 ft above streambed. Bucket flush through top of oil well is necessary. Well is winterized with 2 pints of mineral oil.

Outside staff gage (00.00-2.52) attached to the streamward face of 6" x 6" pressure treated timber.

A standard USGS 2" x 1.43 ft galvanized crest-stage gage is attached to the shoreward face of the 6" x 6" pressure treated timber.

Pertinent elevations	Gage Height (feet)
1. Bottom of Well	0.0

2. Top of instrument shelf	3.37
3. Point of zero flow	1.04
4. Crest of weir-plate	1.54
5. Crest-stage gage (base)	1.10

CONTROL.--The channel is relatively straight, steep and confined above and below the gage with insignificant overflow. The streambed is essentially gravel, cobbles and rock outcrops and is fairly stable.

The low and medium water control is a triple V-notch aluminium weir plate (1/4" x 24" x 8' ft) with symmetrical 1 ft wide x 0.50 ft deep, 90° V-notches secured in concrete; total design capacity, approximately

1.3 cfs +/-

DISCHARGE MEASUREMENTS.--Good measurements can be made at extremely low stages by volumetric means. At higher stages, channel improvements can be made 25 ft upstream to produce satisfactory results.

FLOODS.--Flood of July 1, 1984 reached a stage of 2.19 feet, gage datum. Flood of August 20, 1999 reached a stage of 1.97 feet, gage datum.

POINT OF ZERO FLOW.--1.043 feet, gage datum (in right notch, based on levels from 1/7/83).

Winter Records: Stage-discharge relation affected by ice at times during extensive cold periods.

ACCURACY.--Good records should be obtained

COOPERATION.--Baltimore Ecosystem Study, Long-Term Ecological Research

REFERENCE MARKS.--
RM = Reference Mark RP = Reference Point BM = Bench Mark

RM-1 (1983) Gone.

RM-2 (2004) is top of quartz boulder, 1.5 ft downstream from right end of weir, at right edge of water. Elevation, 1.826 ft (gage datum).

RP-1 (1983) is top of instrument shelf at 3" pipe. Elevation, 3.374 ft (gage datum).

RP-2 (2004) is top landward side of the top CSG bracket. Elevation, 2.042 ft (gage datum).

PHOTOGRAPHS.--See station files.

DATE OF LAST LEVELS.--
Last run: May 08, 2007; Next run: May 07, 2010; Frequency: 3 years

Last station levels were run using RM-2 as basic. The EDL and OG were found reading 0.02 ft less than water surface. A .02 datum correction was applied at the beginning of 2007 by water year. No gages were reset at this time, as the difference has been incorporated into Rating 2.0. See datum corrections based on station levels as applied during the 2007 water year.

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